

Fig. 1 Prior art

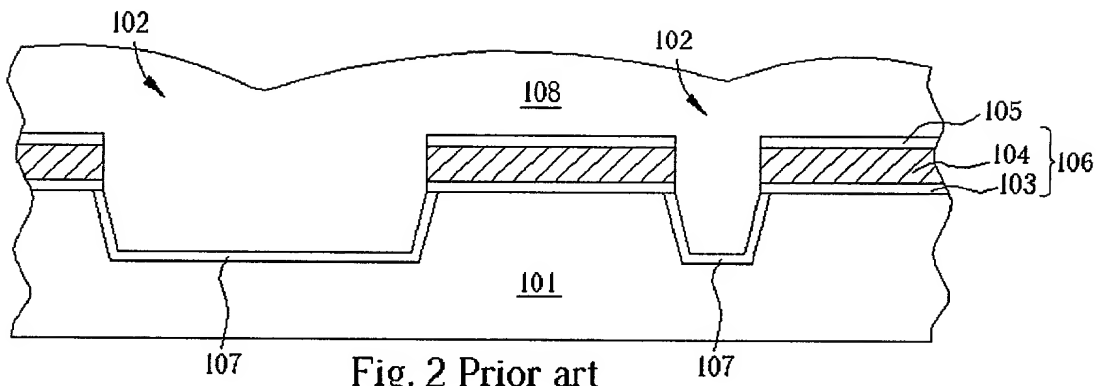


Fig. 2 Prior art

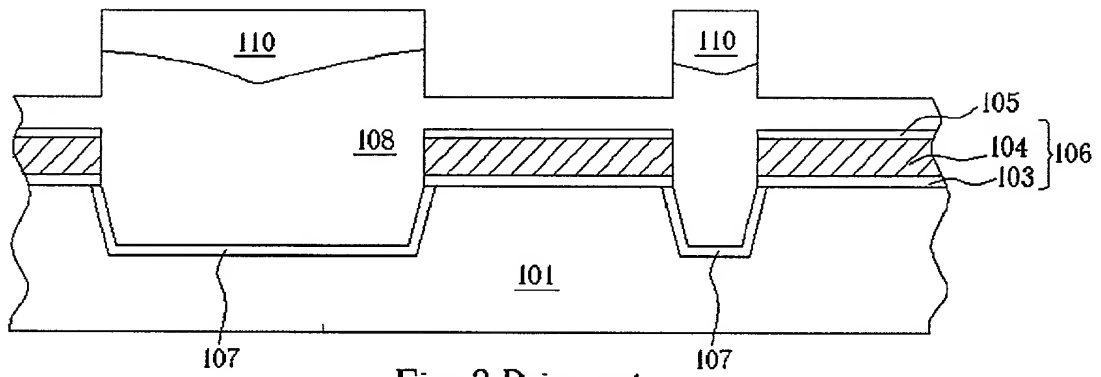


Fig. 3 Prior art

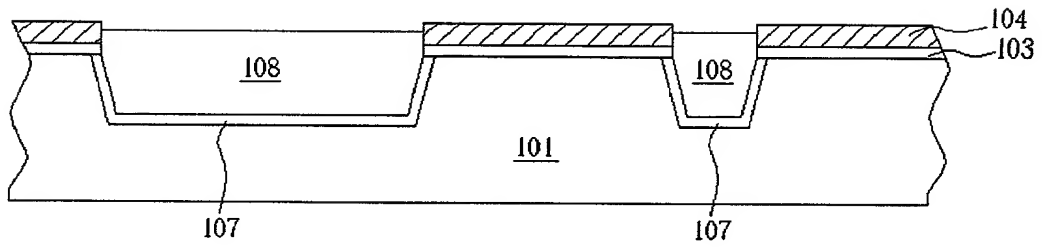


Fig. 4 Prior art

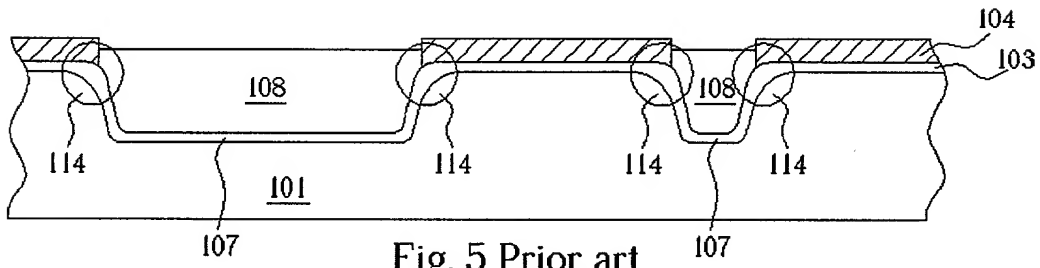


FIG. 5 is a cross-sectional view of a prior art device. The device includes a substrate 101, a top layer 103, and a bottom layer 104. A central channel 108 is formed by a series of U-shaped structures 114. The channel is defined by a top surface 107 and a bottom surface 108. The U-shaped structures 114 are connected by a series of vertical walls 107. The top surface 107 is shown with a hatched pattern, indicating a cross-section.

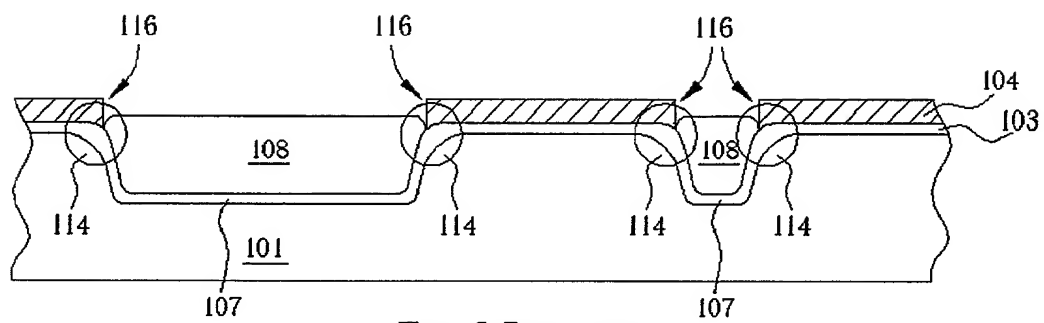


Fig. 6 Prior art

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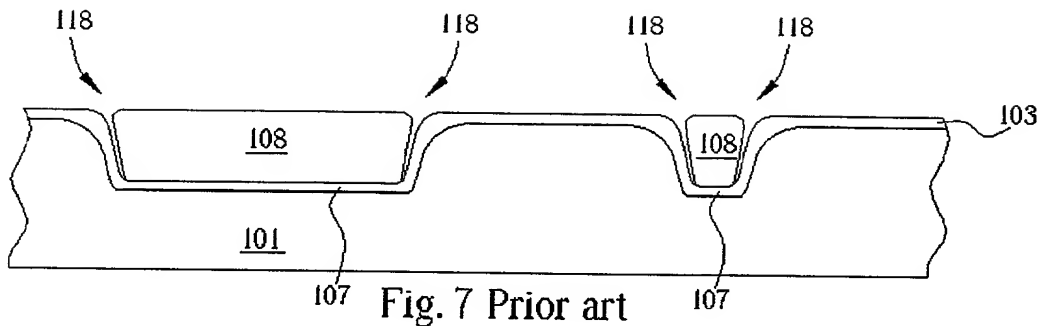


FIG. 7 is a cross-sectional view of a prior art device. The device includes a substrate 101 and a top layer 103. Two rectangular regions 108 are embedded in the substrate 101, each having a sloped side wall 118. The regions 108 are separated by a gap 107.

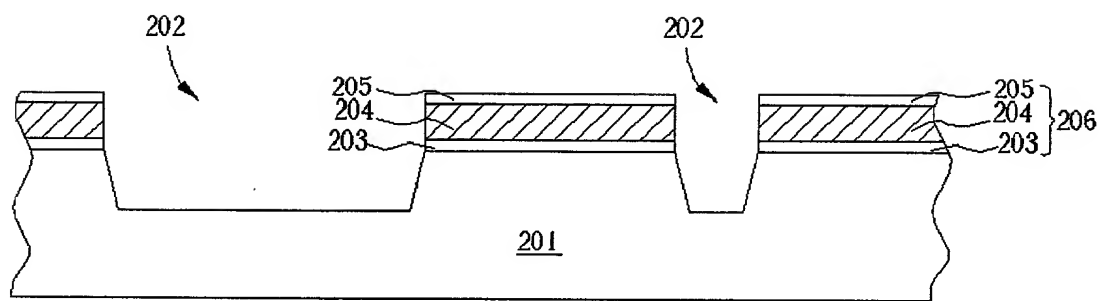


Fig. 8



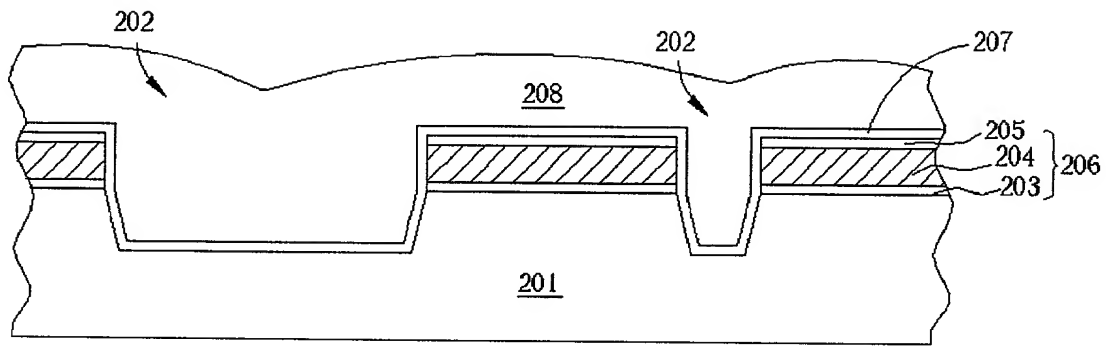


Fig. 9

FIG. 9 is a cross-sectional view of a semiconductor device structure. The structure includes a substrate 201 with a series of recessed regions. The top surface of the substrate is indicated by a wavy line. Two of these recessed regions are labeled 202. Within each recessed region, there is a stack of layers. The bottom layer of this stack is labeled 203. Above layer 203 is a layer labeled 204. Above layer 204 is a layer labeled 205. The top surface of the stack in the recessed region is labeled 206. The top surface of the substrate is labeled 207. The region between the recessed regions is labeled 208.

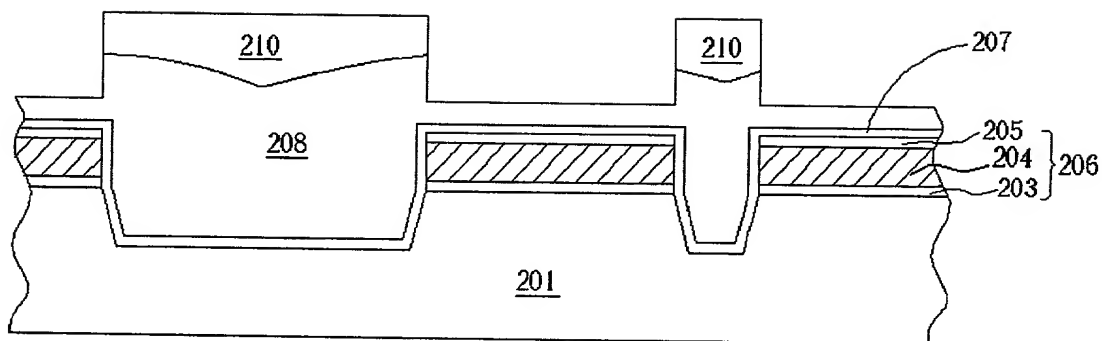


Fig. 10

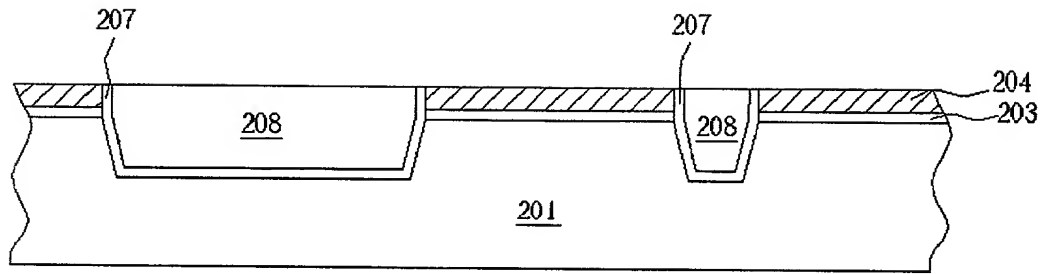


Fig. 11

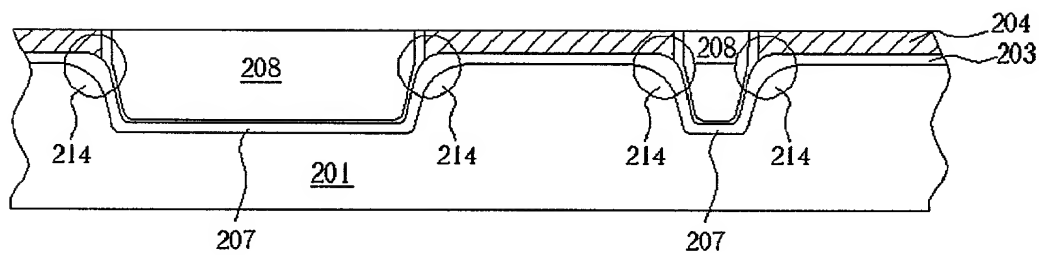


Fig. 12

FIG. 12 is a cross-sectional view of the structure of FIG. 11, showing the structure of the recessed regions 208. The structure of the recessed regions 208 is shown in cross-section, with the recessed regions 208 being formed by a layer 203 that is thicker in the recessed areas. The top layer 204 is shown with a hatched pattern. The bottom layer 207 is shown with a solid line. The middle layer 201 is shown with a solid line. The recessed regions 208 are shown with a solid line. The layer 203 is shown with a solid line. The regions 214 are shown with a solid line.

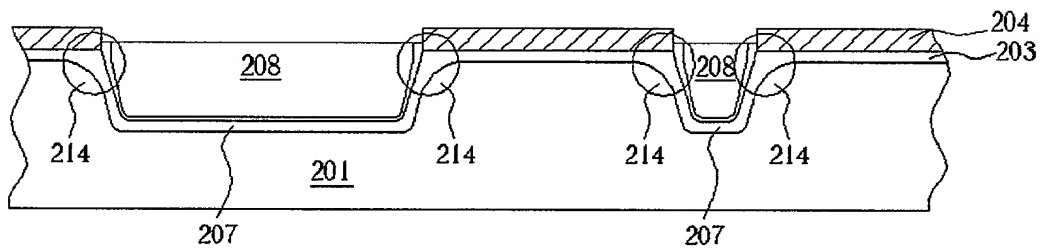


Fig. 13

